Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-22. (Cancelled)

23. (Withdrawn) The device as claimed in claim 22, wherein the optical spectrum controller comprises a tunable optical filter.

24. (Currently amended) ~~The device as claimed in claim 22~~An optical frequency controlling device for ultra-dense wavelength-division-multiplexed optical channels, the device comprising:

an optical channel unit for outputting at least two semiconductor laser beams that form optical channels with different center frequencies;

an optical detection unit for performing optical detection on the semiconductor laser beams outputted from the optical channel unit and generating beat frequency signals;

a microwave spectrum analyzing unit for outputting the spectral information of the beat frequency signals outputted from the optical detection unit as a digital signal;

a controller for receiving the output signal from the microwave spectrum analyzing unit and controlling the center frequencies of the optical channels of the optical channel unit; and

an optical spectrum controller for receiving outputs of the optical channel unit and the controller to change optical spectra of the semiconductor laser beams outputted from the optical channel unit,

wherein the microwave spectrum analyzing unit includes a microwave spectrum analysis circuit for providing the spectral information of the beat frequency signals to the controller so that the controller controls the center frequencies of the optical channels of the optical channel unit,

wherein the optical spectrum controller comprises:

a wavelength tunable laser for supplying a wavelength tunable laser light; and

an optical coupler for coupling an output signal of the wavelength tunable laser with an output signal of the optical channel unit in one optical path.

25. (Previously presented) The device as claimed in claim 24, wherein the output signal of the wavelength tunable laser is subject to periodic optical modulations and provided to the optical coupler.